

CACTUS AND SUCCULENT JOURNAL

Of the Cactus And Succulent Society
Of America

Vol. XVII

JUNE, 1945

No. 6



FIG. 53. *Echeveria pulvinata*.
Haselton photo.



CACTUS AND SUCCULENT JOURNAL

Published and Owned by the Cactus and Succulent Society of America, Inc., Box 101, Pasadena 16, California. A monthly magazine to promote the Society and devoted to Cacti and Succulents for the dissemination of knowledge and the recording of hitherto unpublished data in order that the culture and study of these particular plants may attain the popularity which is justly theirs. Subscription \$3.00 per year. Foreign \$3.00 per year by international money order. Membership in the Cactus Society free with subscription. Mail application to SCOTT HASELTON, Editor, Box 101, Pasadena 16, Calif. Editorial Staff: THE ENTIRE SOCIETY. Entered as Second Class Matter at Pasadena, Calif., under act of March 3, 1879.

Vol. XVII

JUNE, 1945

No. 6

Echeverias	Homer Rush 83
Glimpse of the Desert	Mrs. Anne Labadie 85
Cereusly Speaking	John E. C. Rodgers 87
Wool, Hair, Bristles, Spines	Pictorial 88-89
Affiliate Notes	Chas. A. Place 90
Nathaniel Lord Britton	G. A. Gray 91
Epiphyllum Notes	Edited by the Father of the Epiphyllum Society 93
Spine Chats	Ladislav Cutak 95

EDITORIAL

Since Pearl Harbor, the circulation of the JOURNAL has doubled and is increasing monthly. This is the best endorsement of the policies of the Society and the quality of the voluntary contributions that have maintained the JOURNAL for these seventeen years. We are nearing the twenty-year mark since its inception in July, 1929, when it started with 200 subscribers.

Among our earliest members were Houghton, Willis, Chambers, Frick, Brown, Baxter, Orpet, Sloane, Lawrence, Poindexter, Hertrich, Clum, etc. Some of the old gang have passed along and we miss them. The others have held the Society together along with other enthusiastic members who have carried on. Under the Society's leadership of W. Taylor Marshall we weathered the turning point that always confronts organizations. Since then under the Presidency of Mrs. Maybelle Place, we have attained an all high mark in the history of the Society. The signs are for a bright future as our members return from war and our foreign friends resume their interest in succulents.

The July, August and September issues of the JOURNAL will be doubly interesting with: 1. Monograph (in one installment) of the genus *Cocheminea* by George Lindsay. 2. Reprint of a twenty page masterly review "the Night-blooming Cereus." 3. Supplement to Marshall and Bock's "Cactaceae" bringing up to date the new species and revisions since its publication Dec. 7, 1941. The monthly section devoted to Epiphyllums will include translations, descriptions for pasting on a standard index card, new creations, news and pictures. Don't allow your JOURNAL to lapse because the surplus supply is small and we might not be able to supply missing issues in the future.

OREOCEREUS FLOWERS

A small seedling of *Oreocereus Hendriksenianus* from Hummel's Exotic Gardens was grafted by Frank Mark in your editor's garden about 1941. During May, 1945, this plant produced more than 25 flowers. We agree with President Emeritus Marshall that to date we have had no report of it flowering when growing on its own root in cultivation. See Feb., 1945, JOURNAL.

My Cactus and Succulent Journal is like a friend to me and the sage tips of John E. C. Rodgers are very helpful.

JOSEPH A. MUENCH, N. Y.

REMEDY FOR MEALIES

Tobacco dust, the commercial grade, is a sure remedy for Root Mealy Bugs. Top dress with a good coat, they will die, and tobacco has fertilizing value. It is good on the Stapelias and kindred. It works also on Euphorbias.

E. O. ORPET, Santa Barbara.

THE NEW MAMMILLARIA BOOK

The Mammillaria Handbook is the last word on that subject and how I have enjoyed it! It seems to me now that Dr. Craig handled this subject so wisely and deeply he is the logical person to write a new book covering the balance of Subtribe 6 of Coryphanthanae. It is easy to see from the references he has had to make to handle Mammillarias that he has had to study most all of the Coryphanthanae. We need this work just as badly if not more so than the Mammillarias. Please try to arrange it won't you?

When we had such common Mammillarias in our collections as *baageana*, *Martinezii*, *kelleriana*, etc., and have had for years and no literature on them we were puzzled. I believe collections in the north have plants not known to collections in the south. There are many plants in my collection that are nameless, yet I hope someday to figure them out. Then I have many plants with names that must be wrong for they are not mentioned by Craig, for instance—*ocoponis*, *tabrana*, *aljibensis*, *bookeriana*, *nidulans*, etc. But I have succeeded in naming a great many and have enjoyed it.

MRS. HAZEL C. NEVIN, Calif.



FIG. 54. *Echeveria subrigida* with its red edged leaves, grown and photographed by Haselton.

Echeverias

By HOMER RUSH

In attempting a discussion of the genus *Echeveria* it is almost impossible to consider the entire genus as it is much more expansive and larger than most people realize. It includes plants varying in size from the quite diminutive *E. pusilla* to the very massive types of *E. gibbiflora* group and with leaf shapes, forms and colors of nearly every type from the bright, light green of *E. agavoides** to the beautiful

dark green hairy leaves of *E. pulvinata* with its reddish brown shades.

These plants range from low growing types which grow practically flat upon the ground such as *E. alpina*, to the heavy stemmed, tall growing types such as *E. gibbiflora* var. *metallica* and *E. crenulata*. There are the single headed plants like *E. subrigida* to those which form large clumps or mounds such as *E. stolonifera* and *E. imbricata*.

In years past collectors of this genus of plants

*Series *Urbinae*.

have had many species in their collections which we can no longer seem to find in any of the gardens nor in the lists of plant available from the dealers. One of these is *E. lutea*, a large-growing, single headed plant, with the heads growing as large as ten to twelve inches across and always having a beautiful coloring of light blue and pink suffused throughout the leaves.

These plants all came originally from Mexico and Central America although there have been some reports of finding plants as far south as the northern part of South America. Echeverias have also been found on the islands of the Caribbean Sea; *E. australis* is a good example of these island plants, being from Costa Rica and as far as I know, has never been discovered growing in nature on the mainland.

To the best of my knowledge only one species, *E. strictiflora*, has ever been found native in the United States.

For quite a number of years some eminent American botanists and a few well known European plant students have made a rather strong effort to combine the strictly native West Coast genera of *Dudleya* and *Stylophyllum* with the genus *Echeveria* due to the similarity in the growth habit and the fact that all three genera

come from the Western Hemisphere, but these attempts to lump these three genera have been offset by others who, through study of the plants, have come to realize that there is a decidedly wide separation between *Echeveria* and the other two genera and even enough floral and vegetative difference between *Dudleya* and *Stylophyllum* to warrant their separation.

The flowers of the *Echeveria* are quite different from most succulent flowers in that they never or at least very seldom tend to open wide, in most cases opening little more than cup-shaped although the size varies from no larger than the head of a match (*E. pusilla* and *E. amoena*) to as much as an inch long and nearly as wide (*E. harmsii*, and the new *E. carminea* described a couple of years ago by Mr. Alexander of the New York Botanical Gardens).

In color these flowers range from a pale yellow, through the darker shades of yellow, pink, orchid and to many shades of red. In many of the flowers we find a striking combination of red and yellow. So far as I know there has never been a white flower in the genus although some of the small pink flowered species have such a pale pink color that at first glance one is apt to call it white.

Echeverias have the advantage, to the flower



FIG. 55. United States Department of Plant Distribution photo and description.

ECHEVERIA HOVEYI HORT. (Crassulaceae.) 28673. Plants turned over to the Department for distribution, by Dr. J. N. Rose, Associate Curator, Division of Plants, United States National Museum. Usually stemless, but when old developing a short stem; leaves forming a loose spreading rosette, pale green with broad pinkish or white margins, and these more or less wavy or sometimes colored throughout; flowering stem a secund raceme bearing 6 to 12 flowers; corolla pinkish. The origin of this form is unknown, but it is probably some horticultural sport or hybrid but does not closely resemble any of our common cultivated forms, although it may be said to belong to the group of species in which *Echeveria secunda* and *Echeveria glauca* is found. For immediate distribution. (Original photograph and accompanying text from the records of Ernest Branton.)

lover, of flowering at a time when most of the other garden flowers are not in bloom and by careful planning, a gardener can arrange to have blooms throughout the season.

The genus seems to be quite amenable to hybridization and some of our most beautiful plants are the result of deliberate crosses by experiments. Good examples are *E. Doris Taylor*, *E. set-oliver* and *E. pulv-oliver*.

This genus has produced several sports, the most notable being *E. hoveyi* and *E. pubescens* var. *recurvata*. *E. hoveyi* is supposed to have originated from a plant of the general type of *E. kewensis* or some similar species but so far as I know no one has ever been able to produce the sport a second time although the plant of *E. hoveyi* has remained one of the most popular plants with the succulent collectors.

The other sport with which I am acquainted is also known to some of you, it is the hairy leaved, brown stemmed, dark green plant which we all know as *E. pubescens* var. *recurvata*, the branches of which bear their leaves all or nearly all near the top of the branch and because of the recurved condition of the leaves have the strong resemblance to a small palm tree. The flowers of this sport are identical with *E. pubescens*. This plant has obligingly thrown normal shoots of *E. pubescens* from the roots of the sport plant so that all doubt as to its origin is pretty well settled.

This discussion could be continued indefinitely as this genus holds many more beautiful and interesting species and many hybrids of exceptional merit all worthy of mention.

Glimpse of the Desert

It has been a long time since I dropped in to pay my respects, so I thought I would stop in for a chat.

I had the good fortune of making a trip to Tucson, Arizona, last January, '43. For six months I had the opportunity to browse about on the desert and bask in the warm healthful rays of Arizona sun. The real reason for the trip being to find some relief—if not cure for arthritis. However, after the first four weeks of sanatorium treatments, resting, doctors, and old Sol's violet rays, I commenced to feel the call of the desert (and the desert cacti) which I knew lay scattered across the sandy floor that appeared before me as far as the eye could see. Tomorrow says I to myself, right after my sun bath, I'm going exploring! And I did just that.

The following morning dawned sunny and warm and after I had taken all "crinks" out of the old bones, I donned a pair of jeans, a really "lulu" of a sombrero and a pair of good roomy boots (clod hoppers really). Some vials for desert sand, a bag for stones, a trowel, gloves and water, made up my meager pack for my first trip out. I started due east in the direction of the Rincon Mts., choosing a landmark to return to and one I would be sure to find—or so I thought! Anyway, with growing excitement I started walking; peering under promising looking bushes not wanting to miss any chances of finding any small plants that may be hiding there. I stopped to admire the interesting *Ferocactus Wislizenii*, the shabby opuntias, the chollas, with their cunning desert bird's nests.

From different places as I walked I filled my glass vials with desert soil, sand, gravel, not to mention the odd stones, highly colored, I picked up in my wandering.

Disappointed at not finding any small cacti to take home—yet thoroughly happy at having been part of the desert for a day, I turned to look for my landmark and all I could see was desert. Desert to the sides of me, Desert to the front of me, Desert to the back of me! First time out and lost! Fine thing! In my enthusiasm I had forgotten my friends' warning and had wandered a bit too far. Nevertheless I crossed my fingers and bravely started off on one of

the many never ending little paths that cut across the desert floor. I came out of the desert two miles from my starting point and believe me, I was ready to sit right down and take off those ton-and-a-half boots! But, of course I couldn't back track that two miles ahead of me bare foot. So I trudged home and landed safe and happy—but oh! so tired! And I never dreamed a bed could feel so wonderful as mine did that night.

I guess perhaps I had overdone myself a little in my eagerness to explore the desert for I was quite some time getting over the effects of my outing. For many weeks I just rested and baked under the doctor's supervision.

Then one day I felt the urge to see something of Arizona landmarks. I took a trip to the Santa Catalinas and was greatly impressed with the massive tower of gray rocks. Giant cacti dotted the desert floor. Truly sentinels of the vast and ever interesting desert.

Echinocereus Engelmannii grows in this territory. Also a *Ferocactus Wislizenii* three feet high with a crown of yellow pods drew my inspection and admiration. The thorny *Ocotillo* are in abundance here with their candle-like flame flowers. I later discovered the Sahuaro's National Monument in the foothills of the Tangere-Verde Mts. near Tucson held the finest and most awe-inspiring of this desert monster cactus.

There are many trails in the Catalina Mts. that are used for riding and hiking that I wish I had been able to explore, but even so I enjoyed every minute of time spent in just looking.

I visited Sabino Canyon next and the ride up its narrow road was one I shall never forget. Many inviting looking trails led up through the Mts. here, too. On the way home from the Canyon my friends took me to see Old Fort Lowell, named in honor of Brigadier General C. R. Lowell, Volunteer of the 6th Cavalry, and who fought the Apache Indians. The crumbling, bullet punctured adobe walls of the old U. S. garrison is a historic sight worth seeing.

Before going home we visited the Palo Verde fruit grove. The imported ornamental trees here was a delightful sight to behold. Truly a garden of Eden, and one man's hobby.

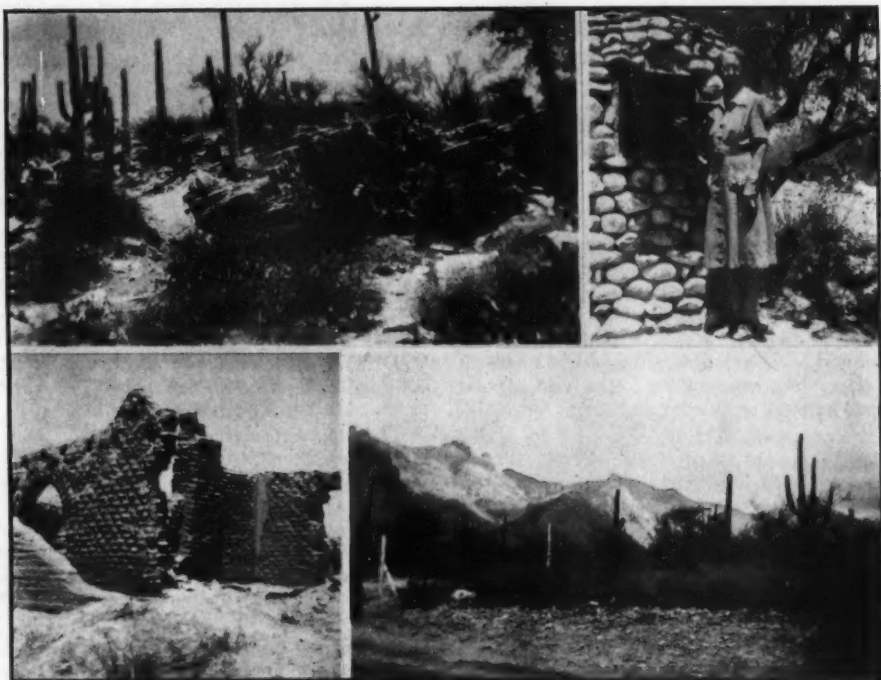


FIG. 36. Top: Sabino Canyon and the author registering. Bottom left: the Old Fort Lowell still stands in the desert. Bottom right: Catalina Mountains as a background for the Giant Cacti.

Later I visited many beautiful private gardens: *Echinocereus*, *Opuntias*, *Agaves*, and *Sahuaros* were blooming and lovely. Pressed flowers from the plants now adorn my scrap book.

One event I particularly liked was the Yaqui Indian Easter ceremony which started on Palm Sunday and continued through Holy week, following with Yaqui fiestas. The costumes were most unusual and interesting.

The Tucson Rodeo was one affair I thoroughly enjoyed. It is their custom every visitor "go western" at that time or be fined in bonds and stamps or jailed in a caged wagon on wheels. No, they didn't get me for I went Western and a perfect grand time I had, too.

Spend a day with Herb Wood who makes furniture and novelties of cactus wood (cholla). Lovely unbelievable things he carves from this cactus wood. One time an invalid, he now makes a good living. From here, too, I carried away many souvenirs.

I must remember to mention that shortly after my arrival I made friends with a botanical teacher and we made many trips together to the desert after the desert came into spring bloom (a truly beautiful sight). Tiny white desert daisies, golden poppies, apricot mallows, pastel shades of the *opuntias*, and Polo Verde's yellow blossoms. From her I learned many of the botanical fine points of these wild desert beauties.

I also purchased a fine collection of mineral stones in which I am most interested, and plan to increase my collection of these interesting formations of nature.

But what about the Cacti? Yes indeed. I also got

my desert plants but engaged the help of a friend in doing so. After my first experience I never ventured alone on the desert with the exception of short strolls in the cool of the evening. I collected *Echinocereus Engelmannii*, *Ferocactus*, several *Mammillarias* and *Coryphanthas*.

The beautiful awe-inspiring sunsets of the desert, the intriguing silver white moonlight nights that light the desert as of day, the mystery solitude of the wild beauty—these are things one can never forget.

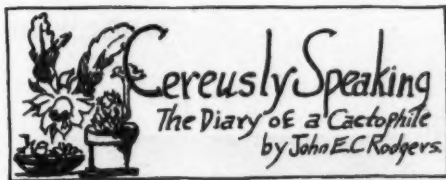
What you see and read about the desert, my friends, cannot be fully comprehended until you have seen this wonderful ever-changing works of nature. If I could have managed I would have brought the whole Tucson Desert back home with me and placed it in my back yard! Well, it was a nice thought anyway. And now Adios Amigos.

MRS. ANNE LABADIE, Mich.

FROM NEW YORK STATE

Had a good year with lots of flowers. 136 species bloomed for me last year. Have a 5-year-old *Parodia aureispina* 5½-inch diameter that had 55 flowers, started April 23 and stopped July 10. A *Wilcoxia senilis* 2-year graft of my own had 76 flowers. *Chamaecereus silvestrii* with 22 flowers, this is the first one that I could get to flower. All plants doing fine, not too much growth. I find they flower better if you don't force them too much. Other years I tried to make them grow too fast and had soft plants that rotted easy and never had good spines or good shape.

FRANK J. KRUG.



June 1. Another birthday. Another year in a Cactophile Diary. Yes, "the mind is a wonderful machine. It need be just refreshed and incidents can again be revived in their former clarity." *Parodia mutabilis* and *P. sanguiniflora* opened. *P. mutabilis*—large orangey yellow. *P. sanguiniflora* (blood-red) comes from "an aristocratic source" slightly blue blooded I have decided—at least borders on the purplish, *Cereus mallisonii* opening. Another child of the spectacular *Heliocereus speciosus*. The hooded effect is all that suggests its other parent, *Aporocactus flagelliformis*. Blooms 4½ inches across since it has plenty of chicken manure (well aged, however) stirred into the soil. Most of my correspondents seem to have trouble with their *Aporocactus*. I find they like rich soils of well-decayed leaf mold, liberal manure content (3 year old cow manure) good drainage (gravel in bottom of pot) and for good measure I fit a tin can (as I do for *Rhipsalis*) over the lower third of the pot to supply a constant moisture supply (not wet) to the roots. No scrubby growth on mine—robust I think.

June 4. *Rebutia fiebrigii* budded. *Parodias* open. *Rebutia kupperiana*—a ruff of brilliance about its plump stem—pleases me. An A-1 type blooms yearly for at least three weeks if not more. Flower orange-red. Base of spine cluster surrounded by purplish markings which adds to its novel effect. I have not found this mentioned in the usually brief descriptions I have read. Gets afternoon sunshine. Rest of plant green, so I'm sure it's not too much light. Put up my muslin shades—thumb tacked to mullions over my *Selenicereus*. Heat absorbs buds even when top of greenhouse is white-washed. Need fresh air more than other cacti. Do best under shaded ventilators the same as orchids, I believe.

June 7. *Echinopsis kratocviliana* and *E. hamata-cantha* blooming for third time. I'm not a "purist" as I refuse to put one genus in one place and another in another. But some of my more easily bloomed types among my columnar cacti. That's the only way I really observe their beauty of spine arrangement and texture. No, I'm not a "back slider" but you folks always ask about blooming types and leave me unchallenged for my "columnar observations." With this arrangement I get a real thrill out of seeing my "steadies" bud and my "hermits" growing. No sign of buds on my *Hylocereus undatus*. Well, it has three "rattle-snake-like rattle" tips which produced blooms last year, so I'll wait—what else can I do? You can't speed up nature too much.

June 11. *Glottiphyllum linguiforme* bloomed again. An old stand-by. Went to Cleveland and looked over the beds set aside for the Midwest Cactus Society exhibit. No rocks—tuffa or otherwise—soil sandy. Spaded to the depth of 18 inches and enriched with well-rotted cow manure—worked into top six inches. Sunshine hits the beds for at least six hours. Collecting plants quite difficult, I find—"A coupons," war work, etc. Many are called but few respond? If I can't get enough I'll use my own.

June 15. *Coryphantha runyonii* budded. A mound of large nipples heads, from one root stock, which

fills a six-inch pot. Has received its pristine Texas look Mrs. Jones, it's donor, says, since I repotted it in a richer humus-gravel type of soil. Likes strong light but not full sun for the whole day. Watch my *Astrophytum* for soil "poverty." Keep them in good well-drained soil with an eagle-eye for sow-bugs, sun-burn, etc. Experience speaking, brothers and sisters.

June 19. Used *Echinopsis albiflora* pollen to hybridize *Lobivia aurea*. Might at least make it diurnal instead of a one day wonder. *Chamaecereus silvestrii* certainly improved *L. aurea* as to lasting qualities. During cloudy weather it stays open for three to five days. (Note: A fly or a bee closed the cycle this year and there'll be "happy events"—I hope). *Echinopsis wilkinsonii** bloomed—pink beauty. Tried *L. aurea* pollen on it, too.

June 22. *Malacocarpus bennisii** bloomed. Still the champion of this genus in my collection. *Adromischus festinus* buds opened. *Nyctocereus serpentinus* has three buds on one of the five foot stems. Usually starts to grow about the time the buds appear and they disappear pronto. Guess the sap is diverted but not mine this year, I decapitated the stem.

June 25. *Oreocereus celianus* growing, but not with the girth and height of *O. fassulatus*. According to M. & B. *O. celianus* will be 15 feet or more high while *O. fassulatus* will be only 6 feet (Fig. page 104, M. & B.). Years ahead I know—both slow growers. I use rich humus soil with a liberal percentage of powdered clay and coarse sand. Anyone who can get thoroughly decayed straw need not worry about fine textured cacti. Eugene Ziegler's plants are a monument to this ingredient.

June 27. *Coryphantha runyonii* looks like a Majolica powder box with its pink blooms above the rough cactus surface. *Echinopsis albiflora* and *wilkinsonii** blooms did not set fruit. *E. aurea* not friendly to "Night-blooming Cereus?" (see June 15). Agaves under grape arbor growing rapidly. Most interesting one I have is *A. filifera*; resembles a bewhiskered *A. Ferdinandi-Regis* in the graying stage. Bulbil of the common *Agave Americana* has developed into an 18-inch pot plant.

June 30. Half of another "Cereusly Speaking" written. Forty-four varieties of cacti have bloomed. Too much rain has fallen; too many weeds have grown and so on. *Selenicereus pteranthus* closed after a "one night stand." A field trip to Woolworth's, Kresges, Grant's and McCrory's stores yielded only a small *Trichocereus schickendantzii* to experiment with. Set pot in tin can to keep temperature regular and moisture constant and it has grown consistently. Houghton, in his *Conspectus of Species in "Cactus"* recommends damp for 8 of the 19 species he lists. *T. spachianus* grows better double-potted as does *T. shaferi*. In fact that steady root temperature is as important to most cacti as the soil I use.

Friend Rodgers:

My most humble apologies to yourself, the Midwest Cactus and Succulent Society and the City of Cleveland, Ohio, for the sad mistake I made in "Affiliate Notes," in the March issue of the JOURNAL.

Perhaps, due to this rather dubious publicity, some of my friends in the cactus world will send in to you some extra plants, thereby helping me to expiate.

C. A. P.

"CACTUS LOU" is the name of a field piece artillery gun which fired her 50,000th round since its unit arrived in France.

*John, where did you get this name?

WOOL, HAIR



FIG. 57. New growth on *Lemaireocereus be-neckii* is practically NAKED in its juvenile form. The adult plant (JOURNAL, Vol. II, pg. 403) has the same appearance as though it had been dusted with white powder.



FIG. 58. *Espostoa lanata* is one of the best examples of the WOOLLY type. Who can say that this wool is not for protection from the cold in its mountainous habitat in South America?



FIG. 59. The Old Man Cactus, *Cephalocereus senilis*, is a true HAIRY type and is perhaps the most popular of all cacti.

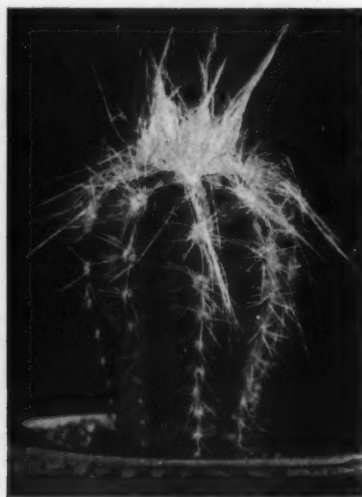


FIG. 60. Hair and FINE BRISTLES are found in seedlings of *Oreocereus celsianus* but the adult plant arms itself with dagger-like spines (see Marshall and Bock, page 104).

BRISTLES, SPINES

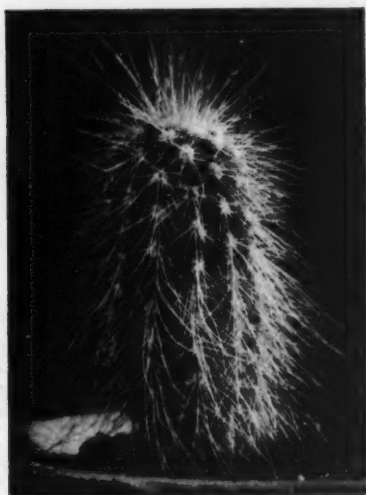


FIG. 61. *Cephalocereus hoppenstedtii* from Mexico has COARSE BRISTLES similar to those of *Opuntia erinacea*. One can see that spines might be the result of a modified leaf while bristles seem to be for protection only.



FIG. 63. HEAVIER SPINES, some even hooked, are shown in *Cochemia poselgeri*. See habitat photo in the forthcoming monograph in the July, 1945, JOURNAL.

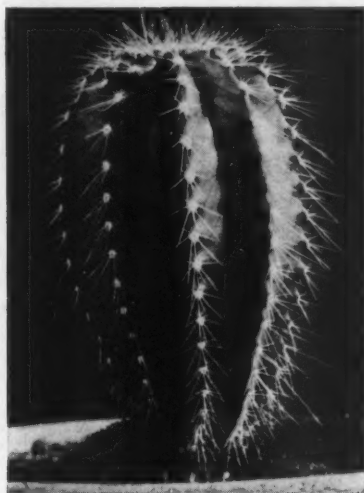


FIG. 62. Seedlings of *Cephalocereus euphorbioides* start life with FINE SPINES which become heavier as the plant matures. Young plants have slight similarity to flowering size plants (JOURNAL Vol. III, pg. 68).



FIG. 64. Spines become DAGGERS in *Ferocactus rectispinus*. Howard Gates measured spines more than ten inches long while collecting in Lower California. Quite a contrast from wool to daggers!

AFFILIATE NOTES

Please mail your Affiliate Notes to Chas. A. Place, 5048 Hook Tree Road, Rt. 1, Box 388T, La Canada, California.

All lovers of xerophytic plants have at least one favorite which they treasure above all others and as a rule they spend much time and money in adding it to their collections. I think I may truly consider myself more fortunate than most, as my favorite plant, *Yucca whipplei* (the Lord's candle) unfolds itself, almost over night, on all sides of me. At this time of the year, no matter which window I may look from, I can count from one to a dozen gorgeous specimens of this stately flower, the nearest, just inside the fence, the farthest as far as the eye can reach dotting the landscape with its creamy white blooms. But enough of bragging, let us get down to business.

I have just heard a report from Mr. Haselton, Editor of the JOURNAL, that its regular subscription list is the largest in its history. Will Secretaries and Members of the different Affiliates send me in lots of news this coming year and we'll see "old man circulation" double. American institutions seem to thrive on publicity as you will note by the large sized "Ads" carried in the various magazines. In many cases where they have not a particle of goods to deliver at the present time and are evidently relying on that which their readers assimilate now, to have its effect in the not too distant future. Publicity is the broad beam lightening the gloom hovering over that road which we have recently travelled.

Mrs. Clara M. Hogue (Sec.) writes:

"The K.I.O. Cactus Club met at the home of Mrs. Mary Goens on Saturday, March 17. We discussed fertilizers and soil as well as compost. It was reported that a copy of Van Laren's was presented to the Museum of Natural History here for the use of the public who desire information on growing cacti. A social hour concluded the meeting."

Mrs. Ethel Rush (Cor.) writes:

"The Los Angeles Cactus and Succulent Society held their meeting on April 8th, at the home of the Rush's and was well attended. The genus for discussion was *Ariocarpus* and a very lively discussion was held. The study work under the direction of Mr. W. T. Marshall brought forth instructive discussion. Each person in attendance received a collected plant of *Ariocarpus fissuratus*. The balance of the meeting was spent in viewing a wonderful showing of colored slides of desert scenes and plants of cacti and succulents, shown by our good friend Mr. George Olin."

"The May meeting of the Los Angeles Cactus and Succulent Society at the home of Mr. and Mrs. Marshall was well attended. A lively discussion was had on the genus *Kalanchoe* with the following species on view: *K. blossfeldiana*, *K. tomentosa*, *K. rotundifolia*, *K. synsepala*, *K. velutina*, *K. uniflorum* and *K. gum-mifera*. Other species discussed were *K. beharensis*, *K. somaliensis* and *K. orgyalis*, the plants of which were not displayed. A plant of *K. blossfeldiana* was given each member, to be grown for a year and then reported on at the May meeting, 1946. The plants of *Anacampseros rufescens* given each members a year ago were brought in and their growth and condition compared and discussed. An interesting part of the meeting was the study session conducted by Mr. Marshall at which several new angles were brought out and discussed."

There is much to be learned, if we keep our eyes open.

From the "Cactus Digest," Lad Cutak, Editor:

"The Henry Shaw Cactus Society's March meeting turned out to be another grand meeting. The program was devoted to the grafting of cactus plants by the trio of likeable grafters, Cutak, Bantel and Kropp. The members brought their own plants for the purpose and we, the teachers, hope that all of you have profited by the lesson. The attendance prize was won by Mr. Niemann. The beautiful dish was planted with succulents including the jade plant, a hybrid hen-and-chickens, and a Canarian *Aeonium*."

From "Cacto-graphs," by Ladislaus Cutak:

A very admirable pot plant for the home collection is *Echeveria pulvinata*.* In my estimation it should be in everyone's collection. This Mexican succulent is a free bloomer, the bell-shaped, orange red flowers making their appearance in January, and continuing for several weeks. The small fleshy shrub is covered densely with a silvery, velvet textured tomentum, which becomes chestnut brown on the stem. At the ends of the stems appear neat rosettes up to 4½ inches broad, composed of approximately 16 leaves. The leaves are sessile, spatulately obovate or oblong, thickly fleshy, dark ivy green on the upper surface and densely covered with stiffish white hair. This tomentum has the same feel as the mohair on your davenport. If this plant is kept too dry the tips of the leaves have a tendency to turn crimson or amaranth purple. From below the rosettes grow elongated, ascending flower stalks with a spiciform raceme of red-orange flowers. Calyx grass green, the segments (sepals) erect, ovate-lanceolate, silvery hairy, ⅜ inch long. Corolla urceolately campanulate, its segments (petals) oblong-lanceolate, acuminate, dorsally velvety and obtusely keeled, maize yellow to pale orange-yellow, carnelian red at the tips and along the keel, ½ inch long. Stamens up to 5/16 inch long, one attached to each corolla lobe at the top of the tube while the other five are attached at or near the base of the tube. Filaments whitish. Anthers apricot yellow, carpels white or whitish green, narrowly ovoid, narrowed into short subulate deep green styles. Stigmas purplish."

Chas. R. Cole (Reg. V. P.) writes:

"A report from the K.I.O. Club at Cincinnati, Ohio. The program committee came up with a new one that holds promise of being a good one. Each meeting has a report on the biography of botanists that we cactophiles are interested in or one of the gardens or parks of the world that have cactus beds or houses. Our first talk was by the Club's 'number one' member, Mr. G. A. Gray, about the 'number one' botanists of cactophiles—Britton and Rose. Mrs. Cole will give the May talk on Backeberg, Berger and Knippel. Mrs. Seinsheimer will give the June talk on Kew Gardens, personal experience. Then come Blossfeld, DeCandolle and DeLaet—Engelmann, Haage, and Knuth—Huntington Gardens—Haworth, Hooker and Bodecker—Humboldt, Lemaire and Otto—Cuban Gardens of Harvard University—Bravo, Linnaeus and Pfeiffer—Marshall (our own), Riccobono and Salm-Dyck—Papago National Forest—Schumann, Weber and Werdermann—University of California Gardens—Vaupeil, Ochoterena and Zuccarini—Saguaro National Forest (where I was bitten by the bug and came home and started the K.I.O.). There are some of these that the researcher will not be able to find anything about and that is the reason that there have been three names assigned to each group." Following is Mr. Gray's talk:

*See cover illustration, this JOURNAL.



FIG. 65. Nathaniel Lord Britton, from an oil painting.

NATHANIEL LORD BRITTON

Jan. 15, 1859-June, 1934

Eldest of three children born to Jasper Alexander Hamilton Britton and Harriet Lord Turner, both descendants of a long line of Staten Islanders. Born at New Dorp, Staten Island, New York. Graduated from Columbia University in 1879 with degree of

Engineer of Mines but entered the New Jersey Geological Survey as Botanist and Assistant Geologist and catalogued the plants of New Jersey. In 1881 he received the degree of Ph.D. from Columbia University. 1885, married Elizabeth Gertrude Knight, a botanist



FIG. 66. Society member, Eugene M. Verges 2nd, was a personal friend of Dr. Britton and photographed these plants that Dr. Britton was studying in Puerto Rico. The Consoules came from a garden in Arroyo and were planted by Dr. Britton at the Coamo Springs Hotel, Coamo.

of distinction (both were starred among the first hundred, in "American men of science"). 1887 saw Britton as Instructor in Botany at Columbia University, Adjunct Professor in 1890 and Professor and Head of the Department of Botany in 1891. N. L. Britton was instrumental in the organization and development of the New York Botanical Gardens, aroused interest, raised funds, supervised plantings and buildings, giving up his position with Columbia University in 1896 (age 37) to become Professor Emeritus and take over the direction of the New York Gardens and was President of the A. A. S. the same year. Co-author of *An Illustrated Flora of the Northern United States, Canada and the British Possessions*, 3 Vols., 1896-98, with Addison Brown. Was instrumental in the organization of the Botanical Society of America and served as Vice-Pres. and Pres. Author of *Manual of the Flora of the Northern United States and Canada*, 1901. 1907 President of New York Academy of Science. Wrote *North American Trees* with J. A. Shafer, 1908. Member of the American Philosophical Society. Author of *Flora of Bermuda*, 1918. Instigated the organization, and served as chairman of the Scientific Survey of Puerto Rico and the Virgin Islands. Wrote *The Bahama Flora* with C. F. Millsbaugh, 1920. Author of *Botany of Puerto Rico and the Virgin Islands* with Percy Wilson. Co-author *The Cactaceae* with J. N. Rose, 1919-23, (4 Vols.). Mrs. Britton was Honorary Curator of Mosses at New York Botanical Gardens for many years. Both Mr. and Mrs. Britton died in 1934. Mt. Britton is in Luquillo National Park, Puerto Rico.

DRIPLESS LATHHOUSE

In the Santa Barbara Botanical Garden Report for 1944, they picture a dripless lathhouse "designed with a sloping roof, diagonal purlins, and metal troughs to carry off excessive rainfall and eliminate dripping. A miniature moat on the outer edge of the foundation discourages ants and sow bugs."



FIG. 67. *Cereus hexagonus* flowering in Puerto Rico. Photo by Mr. Atherton Lee, director of the U. S. Dept. of Agriculture, Mayaguez.

MERCHANDISING CACTI

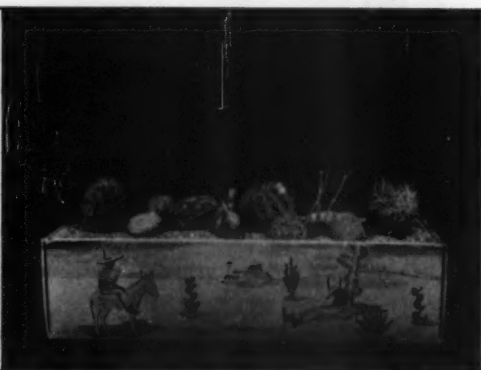
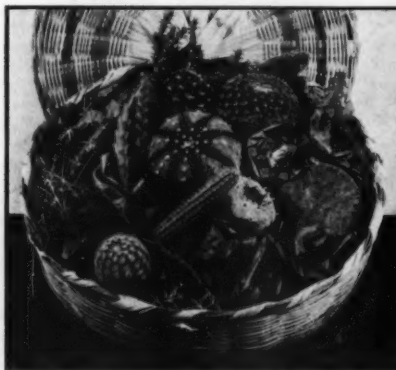


FIG. 68. Left: A commercial basket of cacti packed by Fitzpatrick Cactus Gardens, Texas, would please any cactophile. On the right is a contrasting disillusioning collection of "all different cacti" consisting of 7 dried up cacti (two duplicates) and 3 dead succulents. The "lovely hand-painted Mexican pottery" was chipped and an inch and a half in diameter. Sold by a Michigan mail order house for \$1.69 in a "beautiful, 4-color waterproof, permanent box" that proved to be waxed cardboard that bulged and wilted with one watering.

Epiphyllum Notes

Edited by the Father of the Epiphyllum Society



FIG. 69. The Epiphyllum Society of America was organized by Scott E. Haselton who called the first meeting at H. M. Wegener's in 1939 with Mrs. Haselton acting as Secretary. The election of officers was in the garden of Mrs. T. M. Monmonier the following summer. The above picture was taken in Ventura on May 5, 1940, with Dr. R. W. Poindexter officiating; also shown is Secretary pro tem R. W. Kelly, Mrs. Gertrude Beahm, Mrs. Haselton, John Baumgartner, Lee Chambers, C. P. Sherfy, Bill Schechter, etc. Watch the JOURNAL for future developments of the Society.

GRAFTING EPIPHYLLUMS¹

Reprinted from "The Floricultural Cabinet and Florist Magazine"
London, 1853

I have been exceedingly successful in this operation with the above and others of the Cactus order of plants, and therefore forward the particulars of my procedure.

Stocks: I have used *Cereus triangularis*², *C. speciosissima*, *Opuntia braziliensis*, *Pereskia aculeata* and *longispina*, but find none equal to *Cereus speciosissimus*³; it is much hardier than any of the others, and not so liable to damp off.

¹ Europeans used "Epiphyllum" for *Zygocactus* and other flat, short jointed cacti. Editor's note.

² According to present day classification this might mean *Hylocereus triangularis* or *Acanthocereus pentagonus*. Editor's Note.

³ *Cereus speciosissimus*, according to Br. and R. is a synonym of *Cereus peruvianus*. Editor's Note.

The best method of preparing the stocks is in February to take some of the strongest shoots from six inches to six feet as any length will do; then, with a sharp knife, remove the eyes from 4 or 6 in. from bottom; this prevents the stock making suckers. Let them remain in a cool place for a few days to dry, to prevent damping off; then place each cutting in small pots of good rich sandy loam and filling in a good bark bed withholding water for ten or twenty days.

When the roots protrude through the bottom of the pots, remove into larger, which when well established, are ready for grafting. The operation is performed by taking off the head of the stock where the columnar axis has become firm, dividing it with a sharp knife to the depth of a quarter of an inch, being careful not to bruise the soft outer coat. Grafts of any length, from 6 inches to 18 inches long, will

succeed, those of last year being best.

Leave the end of the graft wedge-shaped, that is, the columnar axis three-fourths of an inch, clearing away all the soft fleshy part to that length, then press it firmly into the stock until both edges meet, passing a spine of *Opuntia longispina*, or some other strong *Opuntia* through the stock and graft, to keep it from rising out of its place; bind a little soft moss round the part operated upon, and keep it shaded; in a week or 10 days it will have taken hold, provided it is properly performed; in the course of a month the moss may be removed, and the graft cut to four or six eyes if a bushy regular head is required. Plants on stocks six feet look the best trained on mushroom-shaped trellises. I have found grafts with several shoots of from six to twelve inches each succeed as well as smaller ones, provided the stocks are healthy.

I have a plant at this time of *Epiphyllum speciosum*, grafted on *Cereus speciosissimus* Sept. 1846; the stock is 6 feet high and the circumference of the head twelve feet; many of the branches or leaves are four feet long.

EDITOR'S NOTE: This early record was contributed to the JOURNAL by Mrs. R. D. Emmons, Oregon.

EPIPHYLLUM SYMPOSIUM

Now that the Epiphyllum flowering season is fresh in our minds we would like the following information for the new Epiphyllum book scheduled for November delivery:

1. List of early bloomers.
2. List of mid-season bloomers.
3. List of late bloomers.
4. List of full season bloomers.

Your vote for the first, second and third choice of:

5. Your favorite Epiphyllum and why.
 6. Best white.
 7. Best red (predominating).
 8. Best pink (pink predominating).
 9. Best autumn shade (orange, amber, etc.).
 10. Best magenta or purple (predominating).
 11. Best pastel shade.
 12. Best small flowered type.
- Miscellaneous (reason).

What questions would you like to see answered?

The lists are very important and these flowers will be described first in the JOURNAL. Please report as promptly as possible. Your vote is urgent whether you live in the East or the West. Everyone sending lists will receive some of the new descriptive blanks that will be the basis of descriptions another season.

EPIPHYLLUM HISTORY

Earliest Reference in "Kakteen Kunde"

December 1891, Volume I, No. 9, page 128

A TRICOTYLEDON. In a sowing of Phyllocactus seeds harvested this spring of Phyllocactus hybr. Conways Giant X Phyllocactus phyllanthoides, I noticed a seedling with three symmetrical germinal-lobes. My curiosity aroused, I examined several hundred seedlings for this abnormality, without, however, finding a second example. I am much interested in hearing if this occurrence of three cotyledons is generally observed in cacti and how often.

The occurrence of three cotyledons is indeed rare, but not phenomenal. In the editor's collection two of this year's seedlings of *Cereus Thurberi* (seeds from Haage, Jr.) and a seedling of an *Opuntia* were provided with three cotyledons. In minomo quoque fidelis! It is gratifying, that the contributor brought this point to the attention of cactus fanciers.

EDITOR'S NOTE: Here again the Germans used "phyllocactus" to denote the hybrids. Translated by Ed Gueguen.

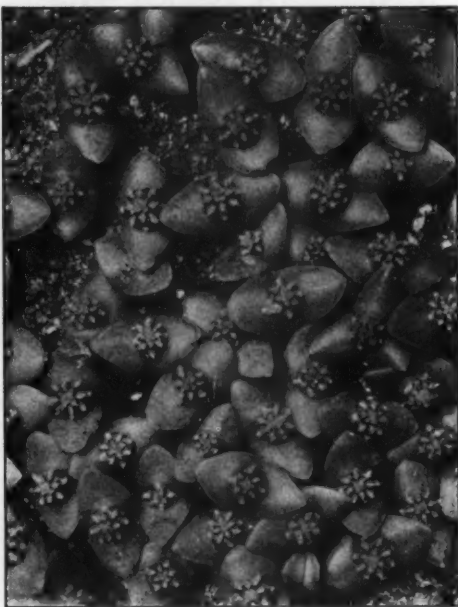


FIG. 70. Editor's Note: Cactus seedlings showing the two seed leaves. Note the one exception with three leaves. Wright Pierce photo in "Cactaceae" by Marshall and Bock.



SPINE CHATS

LADISLAV CUTAK



This is merely a hint to our many succulent plant growers that they should be on their toes whenever anything unusual appears in their succulents. Listen to the story I'm ready to relate to you. Back in 1937, H. Hall of England observed a tiny shoot of *Crassula lycopodioides** growing among literally thousands of normal stems which was paler in comparison. This unusual shoot was cut off, rooted and by the end of the year about half dozen cuttings were raised from it. Most of these cuttings were lost the following winter due to industrial fogs but one or two were salvaged and sent to the coastal area where they thrived remarkably well. Variegation, as you folks may know, is a very common occurrence with many garden plants, but Mr. Hall by inquiries learned that no such happening had ever occurred to the ubiquitous *C. lycopodioides*. In his plants the green or chlorophyll-bearing area is confined to the central portion of each tiny leaf and the rest is creamy white. To add to this variegation, the stems become, under full sun, suffused with a delicate shade of pink. The specimens cultivated show no reversion to the normal green state so far. Growth is vigorous, propagations simple, and it should make a valuable addition to every collection of succulents. Had not Mr. Hall carefully observed and propagated the tiny shoot, it certainly would have shriveled and died, owing to the competition from scores of vigorous, green shoots surrounding it. Hall's article, "Variegation in *Crassula lycopodioides*" appeared in *Gardeners' Chronicle* (London), April 21, 1945, issue.

Landowners in New South Wales and officers of the Prickly Pear Destruction Commission are getting terribly concerned about the spread of *Opuntia aurantiaca* in southwestern Australia. *Opuntia inermis* is the common prickly pear pest of the down-under island but the well known pear controlling insect, *Cactoblastis cactorum*, keeps it in check. This same insect is not effective on the Argentine low-growing species, generally called tiger pear in Australia. This latter low-growing, narrow-jointed species is claimed to be even more dangerous to the State and the Prickly Pear Destruction Commission has asked to be advised of its existence so that mechanical and biological remedies can be applied. The location and destruction of the tiger pears in the early stages may save much worry in the future. *Opuntia aurantiaca* is believed to have been introduced as a pot plant many years ago. All the main infestations can be traced from cactus gardens and the Commission warns that many cactus lovers are growing the tiger pear without knowing the menace that they are fostering, and thereby setting up new infestations of the pest.

Opuntia Schulzii is a new species of tree prickly pears from Argentina recently described by Alberto Castellanos and H. V. Lelong in *Lilloa* (10:395-402, 1944). It belongs to the same group as the well-known *O. brasiliensis* and the less known *O. babien-sis*. The former possesses globular, yellow fruit while the latter's is oblong and red. The new species is closely related to the latter but its fruit is somewhat

larger and pear shaped. Its flowers are small, rotate, yellow and about 1½ inches broad. In the same publication both authors have another article in which they complete the floral description of *Opuntia Weberi* var. *dispar*, authored by them in *Kakteen-Jahrbuch* in 1936. The spines of the variety are shorter and rigid as compared with the longer and flexuous of the type. Mr. J. Pinckney Hester, well known Arizona collector, has described *Echinomastus mariposensis* as a new species from the picturesque Big Bend country of Texas in a recent number of *Desert Plant Life* (17:59-60, April, 1945). This new species puts me in mind of a cactus that was sent to me by Mr. Davis of Marathon but which had died without flowering. At the time I had thought it might be something undescribed.

Mr. J. A. Bock of Sharon, Pa., began playing with cacti when he was only a mere lad. Originally he lived in Western Kansas and came in contact with the few native cactus that grew on the plains there. Whenever he went out on hikes he never failed to bring back clumps of *Coryphantha vivipara* for his backyard collection. Of course, at that time he never knew the plant by its botanical name, only by its popular cognomen "birdnest cactus." Later, when Mr. Bock married and moved East, he somewhat lost interest in cacti but on his visits home he grew homesick for them and went afield to collect a few for his Eastern garden. Unfortunately these pincushions were shortlived but the hardy *Opuntias* survived. At the present time Bock has on hand about two hundred cacti and succulents which he keeps outdoors in a rock garden during the summer season. Later on all of these plants are taken up and distributed on windowsills in every room. Some of the windows have 3 or 4 shelves to hold the plants. Because of lack of space, Mr. Bock prefers small cacti to the big ones. He has no special favorites but prefers and enjoys those that he can force to bloom. Lately, however, he has taken a fancy to *Ceropegias* and is trying to get all the available species for his collection. When time permits and greenhouse material becomes available he plans to build a small glasshouse for his pets. He is employed by the Westinghouse plant in Sharon as a design engineer in the transformer department.

A consistent winner of ribbons on the West Coast is our valuable pen friend, Mrs. John R. Harris of San Diego. She has been exhibiting her cacti and succulents for a number of years, winning honors at the Balboa Park Flower Show and also at the Del Mar, San Diego County Fair. In her backyard she tends to some 1300 specimens, including a heterogeneous collection of Agaves, Mesembrys, Euphorbias, Sedums, Kalanchoes, Cotyledons, Haworthias, Gasterias, Aeoniums and many others. Her husband is an Army man who has been in the service for more than 20 years. At the outset of the war with Japan he was sent to the Aleutians where he spent 15 months. His hobby was raising homing pigeons to which Betty Harris fell heir when John Harris was sent to Alaska. Tending to the pigeons, caring for her cacti and succulents, continuing her household duties and working at a florist shop have occupied Mrs. Harris to the fullest extent, but she has found solace in her work.

*Journal Editor's cutting is still growing. See Vol. XVII, page 41.

SPECIAL THIS MONTH POSTPAID \$1.00

Any 2 of the following odd, rare houseplants,
or all 5 for \$2.00

Haemanthus hybridus (the Blood Lily).
Shizobasopsis volubilis (as strange as the name).
Echeveria gibbiflora carunculata (marked like a brain).
Haworthia setata (fringing translucent).
Velttheimia verschaffelii (the Lily nearest like an Aloe).

Free—Illustrated Catalogue No. 7
Californians 2½ Percent Tax, Please
KNICKERBOCKER NURSERY
6065 Broadway, San Diego 2, Calif.

BEAHM GARDENS**EPIPHYLLUM HYBRID**

HARMONY—An unsurpassable addition to your collection. Exhibited several years ago as R. 79 by Mrs. Steele at the Cactus Show at Paul Howard's where it created wide spread interest. The flower is of a water-lily shape in three distinct orchid tones. Tapering pointed petals standing well apart like a jewel setting. This will be ready for distribution any time after July. Priced at \$3.00 for well-rooted cuttings. Flowers or the color Kodaslides may be seen any day.

BEAHM GARDENS
R.F.D. 1, Box 746 2700 Paloma Pasadena, Calif.

BOOK NOTES

The Royal Horticultural Color Chart is out of print for the duration.

The Study of Cacti by Vera Higgins will soon be available once more. Mail a post card now to reserve a copy from the first shipment. Price will be approximately \$2.50.

Euphorbia Review, complete, is now reduced to \$5.00 unbound. This will be a rare item in a few years. Order now.

Please add Sales Tax on Californian sales
Add 10% for postage outside the U.S.A.

ABBEY GARDEN PRESS

Box 101 — Pasadena 16 — California

CACTUS CATALOG

Number 17 for 1945 with 65 clear illustrations; 20 illustrations reprinted from original A. Blanc Catalog. Cultural guide. Insect Control, and How to Graft, 20 big pages. 25c coin or stamps. Free to any Cactus Society.

FITZPATRICK'S CACTUS GARDENS

FRD No. 3-J, Edinburg, Texas

SPECIAL OFFER

Beautiful specimens and showplants of many kinds and sizes. In spite of the high wages and material we offer our plants at the former prices. Ask for list.

Collections of Mexican cacti: Blooming sizes with one crest included mailed free:

100 different plants.....\$25.00
50 different plants.....\$13.00

Write to your Dept. of Agriculture for forms for the importation of cacti from Mexico. There is no charge.

FERDINAND SCHMOLL

(Citizen of Mexico and Member of Cactus Society)
Cadereyta, Quo., Mexico

The Editor reserves the right to accept or reject advertising

COMMERCIAL DEALERS**QUALITY HILL CACTUS HOME**

CACTUS AND SUCCULENTS—RETAIL ONLY
559 Evanston Ave. Kansas City, Mo.

VENTURA EPIPHYLLUM GARDENS

EPIPHYLLUMS
153 McFarlane Drive Ventura, Calif.

ALBERT AROZENA NURSERY

WHOLESALE GROWERS CACTI AND SUCCULENTS
1518 E. Rosecrans Compton, Calif.

CACTUS PETE

CACTI, SUCCULENTS, AND EPIPHYLLUMS
5440 Valley Blvd. Los Angeles, Calif.

COOVER COLLECTIONS

CACTI, SUCCULENTS, CRYPTANTHUS, EPIPHYLLUMS
2018 S. Summerlin Orlando, Florida

ART GLOVER'S NURSERY

GROWERS OF CACTI AND SUCCULENTS—
WHOLESALE AND RETAIL
P. O. Box 121 San Dimas, Calif.

FITZPATRICK'S CACTUS GARDENS

CACTI AND SUCCULENTS—RETAIL
Rt. 3, Edinburg Texas

THE CACTUS GARDEN

CACTI AND SUCCULENTS—WHOLESALE
Rt. 3, Edinburg Texas

SWANSON CACTUS GARDENS

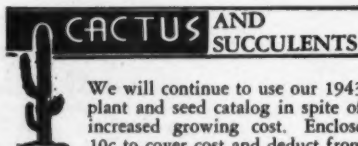
CACTI AND SUCCULENTS
1201 Gardena Blvd. Gardena, Calif.

DE WAYNE CACTUS GARDENS

CACTI AND SUCCULENTS
1340 Bayshore Blvd. San Francisco 24, Calif.

COOLIDGE RARE PLANT GARDENS

"THE JEWEL CORRIDOR" OF EPIPHYLLUMS.
RETAIL. NO MAIL-ORDERS.
889 N. Foothill Blvd. Pasadena, Calif.



We will continue to use our 1943 plant and seed catalog in spite of increased growing cost. Enclose 10c to cover cost and deduct from first order.

R. W. KELLY

Box 235-C, Temple City, Calif.

The 10 volume set of *Flora Capensis* is now ready for delivery for \$100 during July.

The Mammillaria Handbook—Dr. R. T. Craig \$7.50. Postage in U.S.A. 15c, foreign 50c.

Order now. Check your plants. This new monograph on Mammillarias contains 400 pages bound in heavy buckram and the same size as the smaller edition of the Britton and Rose Reprint. There are 236 species fully described and illustrated with 300 photographs.

Our Christmas! stock of *Birds of America* by Audubon has just arrived. 435 plates in color. The most book for the money that has ever been published—\$5.00. Postage in U.S.A. 20c, foreign 60c.

The Amateur Bulletin (1942).

Valuable for beginners.....Cloth 2.10

Purchasing books direct from this press is the best way you can support the JOURNAL which is dependent on its book sales.

